

to enable a user-initiated selection, providing the extracted information for presentation in the user interface of the user terminal to provide a user with a possibility to make a selection that causes requesting complementary service description regarding said advertised service, sending, from the user terminal in response to the selection by the user, a request for the complementary service description to the beacon apparatus, establishing, in response to said user-initiated request, a wireless short-range point-to-point connection between the beacon apparatus and the user terminal for providing supplementary information for obtaining the complementary service description to supplement the preliminary service description, and receiving, in the user terminal, said supplementary information via said wireless point-to-point connection and applying said supplementary information to acquire said complementary service description.

**[0009]** According to another example embodiment, a computer program is provided, the computer program including one or more sequences of one or more instructions which, when executed by one or more processors, cause a wireless communication apparatus at least to broadcast, via a wireless communication channel, one or more advertising messages comprising a preliminary service description regarding a service accessible at a remote server apparatus, the preliminary service description configured to cause associated service indication on a user interface of a wireless communication apparatus receiving at least one of the one or more advertising messages, to receive a user-initiated request for complementary service description from a requesting wireless communication apparatus having received at least one of the one or more advertising messages, to establish, in response to said user-initiated request, a wireless short-range point-to-point connection with the requesting wireless communication apparatus for providing supplementary information for obtaining complementary service description regarding said advertised service to supplement the preliminary service description, and to transmit said supplementary information via said point-to-point wireless connection to the requesting wireless communication apparatus.

**[0010]** The computer program referred to above may be embodied on a volatile or a non-volatile computer-readable record medium, for example as a computer program product comprising at least one computer readable non-transitory medium having program code stored thereon, the program which when executed by an apparatus cause the apparatus at least to perform the operations described hereinbefore for the computer program according to an example embodiment of the invention.

**[0011]** The exemplifying embodiments of the invention presented in this patent application are not to be interpreted to pose limitations to the applicability of the appended claims. The verb "to comprise" and its derivatives are used in this patent application as an open limitation that does not exclude the existence of also unrecited features. The features described hereinafter are mutually freely combinable unless explicitly stated otherwise.

**[0012]** Some features of the invention are set forth in the appended claims. Aspects of the invention, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of some example embodiments when read in connection with the accompanying drawings.

## BRIEF DESCRIPTION OF FIGURES

**[0013]** The embodiments of the invention are illustrated by way of example, and not by way of limitation, in the figures of the accompanying drawings.

**[0014]** FIG. 1 schematically illustrates some components of a wireless communication arrangement and devices according to an example embodiment.

**[0015]** FIG. 2 illustrates example structure of advertising messages according to Bluetooth Low Energy protocol according to an example embodiment.

**[0016]** FIG. 3 illustrates an exemplifying content for preliminary service description according to an example embodiment.

**[0017]** FIG. 4 illustrates methods according to example embodiment(s).

**[0018]** FIG. 5 illustrates signaling flow according to an example embodiment.

**[0019]** FIG. 6 schematically illustrates some components of an exemplifying apparatus in accordance with an example embodiment.

**[0020]** FIG. 7 illustrates an advertising message according to Bluetooth Low Energy protocol for carrying an exemplifying preliminary service description in accordance with an example embodiment.

## DESCRIPTION OF SOME EMBODIMENTS

**[0021]** FIG. 1 schematically illustrates some components or entities of a wireless communication arrangement 100 to depict an exemplifying use case for various embodiments of the present invention. The communication arrangement 100 includes a first device 110 for broadcasting service information regarding a service and a second device 130 for acquiring the service information broadcast by the first device 110. The communication arrangement further comprises a server device 150 arranged to provide the service described in the information provided from the first device 110 to the second device 130.

**[0022]** The first device 110 is, typically, arranged at a location of interest in a fixed manner. The first device 110 may be arranged to repeatedly broadcast one or more predetermined advertising messages according to a predetermined schedule, e.g. at predefined intervals. The advertising message(s) comprise service information regarding a service. Consequently, the first device 110 may be considered to serve as a beacon device configured to broadcast the advertising message(s) comprising service information, the advertising message(s) being broadcast according to the predetermined schedule without a need for continuous control by a human user. The first device 110 may also be referred to as an advertising device due to being arranged to broadcast the advertising message(s). Although depicted as a single device in FIG. 1, the arrangement 100, typically, includes a plurality of first devices 110 arranged to broadcast the advertising message(s).

**[0023]** The second device 130 is, typically, a mobile device, carried by a user staying or visiting the location of interest. The second device 130 may be arranged to perform scanning of advertising messages broadcast by the first devices 110 in its vicinity. The scanning is typically carried out in accordance with a predefined scanning schedule. Due to this operation, the second device 130 may also be referred to as a scanning device. Alternatively, the second device 130 may be referred to as a user terminal due to being operating by a human user, hence clearly distinguishing from the first device